

Cement Manufacturing: 2002

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2002 Economic Census

Manufacturing

Industry Series



U S C E N S U S B U R E A U

Helping You Make Informed Decisions

U.S. Department of Commerce
Economics and Statistics Administration
U.S. CENSUS BUREAU



Table 1. Historical Statistics for the Industry: 2002 and Earlier Years

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry and year ¹	Com- panies ²	All estab- lish- ments ³	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)	
			Number ⁴	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)					
327310, Cement manufacturing	2002 ..	131	246	17 854	902 085	13 308	28 649	620 865	4 569 418	2 949 444	7 454 784	1 404 415
	2001 ..	N	N	17 220	860 475	12 733	28 203	583 608	4 790 951	2 724 535	7 570 172	1 430 007
	2000 ..	N	N	17 175	829 473	12 726	28 048	562 446	4 693 040	2 589 699	7 161 833	1 107 969
	1999 ..	N	N	17 323	815 732	12 848	28 599	550 313	4 564 089	2 526 645	7 030 974	691 184
	1998 ..	N	N	17 227	756 333	12 706	27 382	505 424	4 440 531	2 528 933	6 984 000	525 424
	1997 ..	176	277	16 925	734 226	12 496	27 244	498 001	4 022 503	2 475 798	6 531 747	505 630

¹Statistics presented for years ending in 2 and 7 are census data. Interim census years are derived in a representative sample of manufacturing establishments canvassed in the Annual Survey of Manufactures (ASM).

²For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

³Includes establishments with payroll at any time during the year.

⁴Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 2. Industry Statistics for Selected States: 2002

[States that are a disclosure or with less than 100 employees are not shown. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by *, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

Industry and geographic area	E ¹	All establishments ²		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
		Total	With 20 employees or more	Number ³	Payroll (\$1,000)	Number ³	Hours (1,000)	Wages (\$1,000)				
327310, Cement manufacturing												
United States	2	246	148	17 854	902 085	13 308	28 649	620 865	4 569 418	2 949 444	7 454 784	1 404 415
California	3	25	17	2 039	111 120	1 517	3 475	77 451	586 308	422 896	1 005 094	53 517
Florida	4	12	8	889	42 872	680	1 466	30 144	229 579	155 773	389 265	35 164
Illinois	3	13	6	686	31 215	489	1 027	18 798	152 106	128 536	280 000	18 417
Indiana	—	5	4	626	30 067	481	1 026	21 237	197 156	91 285	286 515	28 545
Iowa	—	7	3	465	21 488	361	721	15 338	142 131	73 656	210 575	14 417
Kansas	3	5	4	549	25 642	412	852	17 107	110 944	64 456	176 152	16 444
Michigan	4	9	7	966	53 652	742	1 618	38 357	256 469	185 921	439 644	14 329
Missouri	2	10	6	947	45 087	731	1 381	32 978	299 510	132 749	428 071	13 508
New York	—	11	5	581	29 534	414	866	19 588	165 924	79 881	238 620	17 729
Ohio	5	12	3	340	17 868	247	538	12 300	79 778	46 345	129 323	5 383
Oklahoma	—	4	3	376	18 599	276	554	9 777	93 763	35 865	126 791	3 611
Pennsylvania	1	20	15	1 666	83 433	1 258	2 628	57 756	386 484	212 532	585 768	47 972
Tennessee	—	7	2	242	12 585	194	408	9 373	97 178	34 424	127 576	2 189
Texas	1	17	15	1 730	82 662	1 296	2 901	57 764	546 427	337 585	877 845	42 036

¹Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data account for 10 percent or more of the figures shown: 1–10 to 19 percent; 2–20 to 29 percent; 3–30 to 39 percent; 4–40 to 49 percent; 5–50 to 59 percent; 6–60 to 69 percent; 7–70 to 79 percent; 8–80 to 89 percent; 9–90 percent or more.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C. For geographical definitions, see Appendix D.

Table 3. Detailed Statistics by Industry: 2002

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Item	Value
327310, Cement manufacturing	
Companies ¹	number.. 131
All establishments ²	number.. 246
Establishments with 1 to 19 employees	number.. 98
Establishments with 20 to 99 employees	number.. 54
Establishments with 100 employees or more	number.. 94
All employees ³	number.. 17 854
Total compensation	\$1,000.. 1 180 942
Annual payroll	\$1,000.. 902 085
Total fringe benefits	\$1,000.. 278 857
Production workers, average for year	number.. 13 308
Production workers on March 12	number.. 13 036
Production workers on May 12	number.. 13 467
Production workers on August 12	number.. 13 444
Production workers on November 12	number.. 13 243
Production worker hours	1,000.. 28 649
Production worker wages	\$1,000.. 620 865
Total cost of materials	\$1,000.. 2 949 444
Materials, parts, containers, packaging, etc., used	\$1,000.. 1 540 896
Resales	\$1,000.. 131 982
Purchased fuels	\$1,000.. 574 238
Purchased electricity	\$1,000.. 551 426
Contract work	\$1,000.. 150 902
Quantity of electricity purchased for heat and power	1,000 kWh.. 12 286 027
Quantity of electricity generated less sold for heat and power	1,000 kWh.. D
Total value of shipments	\$1,000.. 7 454 784
Primary products value of shipments	\$1,000.. 7 168 757
Secondary products value of shipments	\$1,000.. 113 261
Total miscellaneous receipts	\$1,000.. 172 766
Value of resales	\$1,000.. 154 952
Contract receipts	\$1,000.. D
Other miscellaneous receipts	\$1,000.. D
Primary products specialization ratio	percent.. 98
Value of primary products shipments made in all industries	\$1,000.. 7 218 999
Value of primary products shipments made in this industry	\$1,000.. 7 168 757
Value of primary products shipments made in other industries	\$1,000.. 50 242
Coverage ratio	percent.. 99
Value added	\$1,000.. 4 569 418
Total inventories, beginning of year	\$1,000.. 1 077 102
Finished goods inventories	\$1,000.. 256 607
Work-in-process inventories	\$1,000.. 192 948
Materials and supplies inventories	\$1,000.. 627 547
Total inventories, end of year	\$1,000.. 1 189 444
Finished goods inventories	\$1,000.. 296 874
Work-in-process inventories	\$1,000.. 216 759
Materials and supplies inventories	\$1,000.. 675 811
Gross value of depreciable assets (acquisition costs) at beginning of year	\$1,000.. 10 859 393
Total capital expenditures (new and used)	\$1,000.. 1 404 415
Buildings and other structures (new and used)	\$1,000.. 190 923
Machinery and equipment (new and used)	\$1,000.. 1 213 492
Automobiles, trucks, etc., for highway use	\$1,000.. 13 286
Computers and peripheral data processing equipment	\$1,000.. 18 908
All other expenditures for machinery and equipment	\$1,000.. 1 181 298
Total retirements	\$1,000.. 181 603
Gross value of depreciable assets at end of year	\$1,000.. 12 082 205
Depreciation charges during year	\$1,000.. 643 872
Total rental payments	\$1,000.. 59 680
Buildings and other structures	\$1,000.. 16 029
Machinery and equipment	\$1,000.. 43 651
Total other expenses ⁴	\$1,000.. 595 471
Response coverage ratio ⁵	percent.. 83
Repair and maintenance services of buildings and/or machinery ⁴	\$1,000.. 212 960
Communications services ⁴	\$1,000.. 7 119
Legal services ⁴	\$1,000.. 7 963
Accounting, auditing, and bookkeeping services ⁴	\$1,000.. 1 160
Advertising and promotional services ⁴	\$1,000.. 4 662
Expensed computer hardware and supplies and purchased computer services ⁴	\$1,000.. 4 222
Refuse removal (including hazardous waste) services ⁴	\$1,000.. 6 018
Management consulting and administrative services ⁴	\$1,000.. 28 527
Taxes and license fees ⁴	\$1,000.. 68 485
All other expenses ⁴	\$1,000.. 254 354

¹For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

⁴Based on Annual Survey of Manufactures (ASM) sample data.

⁵A response coverage ratio is derived for this item by calculating the ratio of the weighted employment (establishment data multiplied by sample weight) for those Annual Survey of Manufactures (ASM) establishments that reported to the weighted total employment for all ASM establishments classified in this industry.

Note 1: The amounts shown for other expenses reflect only those services that establishments purchase from other companies.

Note 2: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 4. Industry Statistics by Employment Size: 2002

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Employment size class	E ¹	All establishments ²	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Number ³	Payroll (\$1,000)	Number ³	Hours (1,000)	Wages (\$1,000)				
327310, Cement manufacturing											
All establishments	2	246	17 854	902 085	13 308	28 649	620 865	4 569 418	2 949 444	7 454 784	1 404 415
Establishments with—											
1 to 4 employees	6	53	138	6 351	103	209	4 418	45 852	24 821	70 494	3 247
5 to 9 employees	8	20	124	6 495	98	206	4 715	36 902	21 637	58 532	2 881
10 to 19 employees	5	25	335	14 610	260	537	10 057	70 380	61 637	133 893	6 026
20 to 49 employees	4	28	895	38 378	661	1 330	25 360	182 278	140 425	329 688	14 041
50 to 99 employees	2	26	1 966	92 945	1 409	3 071	62 155	416 030	349 162	761 429	30 201
100 to 249 employees	1	90	13 202	682 785	9 819	21 186	467 846	3 537 290	2 122 599	5 592 773	1 309 552
250 to 499 employees	5	4	1 194	60 521	958	2 110	46 314	280 686	229 163	507 975	38 467
500 to 999 employees	—	—	—	—	—	—	—	—	—	—	—
1,000 to 2,499 employees	—	—	—	—	—	—	—	—	—	—	—
2,500 employees or more	—	—	—	—	—	—	—	—	—	—	—
Administrative records ⁴	9	53	256	12 887	196	421	8 925	67 470	46 317	113 787	6 608

¹Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data account for 10 percent or more of the figures shown: 1–10 to 19 percent; 2–20 to 29 percent; 3–30 to 39 percent; 4–40 to 49 percent; 5–50 to 59 percent; 6–60 to 69 percent; 7–70 to 79 percent; 8–80 to 89 percent; 9–90 percent or more.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

⁴Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. Data are also included in respective size classes shown.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 5. Industry Statistics by Primary Product Class Specialization: 2002

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry or product class code	Industry or primary product class	All establishments ¹	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Number ²	Payroll (\$1,000)	Number ²	Hours (1,000)	Wages (\$1,000)				
327310	Cement manufacturing	246	17 854	902 085	13 308	28 649	620 865	4 569 418	2 949 444	7 454 784	1 404 415
3273100	Cement, hydraulic (including cost of shipping containers)	246	17 854	902 085	13 308	28 649	620 865	4 569 418	2 949 444	7 454 784	1 404 415

¹Includes establishments with payroll at any time during the year.

²Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 6a. **Products Statistics: 2002 and 1997**

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Product code	Product	Number of companies with shipments of \$100,000 or more	Quantity of production for all purposes	Product shipments	
				Quantity	Value (\$1,000)
327310	Cement manufacturing	2002.. N 1997.. N	X X	X X	7 218 999 6 351 646
3273100	Cement, hydraulic (including cost of shipping containers)	2002.. N 1997.. N	X X	X X	7 218 999 6 351 646
32731001	Normal portland cement ASTM type I, hydraulic (including cost of shipping containers)	2002.. N 1997.. N	X X	X X	3 959 558 3 660 639
3273100111	Normal portland cement ASTM type I, hydraulic (including cost of shipping containers)	1,000 s tons.. 2002.. 40 1997.. 44	X X	q58 272.0 55 063.0	3 959 558 3 660 639
32731002	Portland cement, moderate heat of hydration (moderate sulfate resistance) ASTM type II, hydraulic (including cost of shipping containers)	2002.. N 1997.. N	X X	X X	1 519 561 1 198 464
3273100211	Portland cement, moderate heat of hydration (moderate sulfate resistance) ASTM type II, hydraulic (including cost of shipping containers)	1,000 s tons.. 2002.. 23 1997.. 29	X X	q21 881.1 p17 780.0	1 519 561 1 198 464
32731003	Other portland hydraulic cements including ASTM type III, ASTM type IV, and ASTM type V	2002.. N 1997.. N	X X	X X	687 683 707 845
3273100311	Portland cement, high early strength ASTM type III, hydraulic (including cost of shipping containers)	1,000 s tons.. 2002.. 23 1997.. 30	X X	p3 992.8 4 797.7	284 653 343 988
3273100321	Portland cement, high sulfate resistance ASTM type V, hydraulic (including cost of shipping containers)	1,000 s tons.. 2002.. 12 1997.. 13	X X	p1 701.3 p1 021.1	110 513 86 925
3273100331	Other portland hydraulic cements (oil well, white cement, blended cements, etc.) including low heat of hydration ASTM type IV (including cost of shipping containers)	1,000 s tons.. 2002.. 20 1997.. 24	X X	S S	292 517 276 932
32731004	Other cements (including cost of shipping containers)	2002.. N 1997.. N	X X	X X	776 733 558 627
3273100411	Masonry cement, hydraulic (including cost of shipping containers)	1,000 s tons.. 2002.. 30 1997.. 34	X X	S q4 735.5	579 416 438 992
3273100421	Other cements (natural, hydraulic lime, etc.) (including cost of shipping containers)	1,000 s tons.. 2002.. 13 1997.. 17	X X	S S	156 841 90 530
3273100431	Cement clinker, for sale separately, hydraulic (including cost of shipping containers)	1,000 s tons.. 2002.. 11 1997.. 10	X X	928.8 S	40 476 29 105
3273100Y	Cement, hydraulic (including cost of shipping containers), nsk, total	2002.. N 1997.. N	X X	X X	275 464 226 071
3273100YWW	Cement, hydraulic (including cost of shipping containers), nsk, for nonadministrative-record establishments	2002.. N 1997.. N	X X	X X	163 458 114 825
3273100YWY	Cement, hydraulic, (including cost of shipping containers), nsk, for administrative-record establishments	2002.. N 1997.. N	X X	X X	112 006 111 246

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p-10 to 19 percent estimated; q-20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

Note 2: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 6b. **Product Class Shipments for Selected States: 2002 and 1997**

[Not applicable for this report.]

Table 7. Materials Consumed by Kind: 2002 and 1997

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Material code	Material consumed	Quantity	Delivered cost (\$1,000)
327310	Cement manufacturing		
00900001	Total materials .....2002..	X	1 540 896
	.....1997..	X	1 209 373
32213003	Paperboard liners .....2002..	X	D
	.....1997..	X	D
32222403	Paper shipping sacks and multiwall bags .....2002..	X	D
	.....1997..	X	D
32200007	Other paper and paperboard products .....2002..	X	8 866
	.....1997..	X	7 795
32710000	Refractories, clay and nonclay .....2002..	X	79 588
	.....1997..	X	61 433
32731007	Cement clinker .....2002..	X	211 623
	.....1997..	X	218 967
32799215	Minerals and earths, ground or otherwise treated .....2002..	X	177 588
	.....1997..	X	152 661
32700007	Other stone, clay, glass, and concrete products .....2002..	X	110 015
	.....1997..	X	34 058
21231003	Crushed and broken stone (including cement rock, limestone, etc.) .....2002..	X	133 502
	.....1997..	X	134 062
32791003	Abrasives and abrasive products .....2002..	X	7 921
	.....1997..	X	N
00970099	All other materials and components, parts, containers, and supplies .....2002..	X	519 450
	.....1997..	X	409 611
00971000	Materials, ingredients, containers, and supplies, nsk .....2002..	X	246 703
	.....1997..	X	143 931

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p-10 to 19 percent estimated; q-20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

Note 2: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.